

## **REMARKS**

### **Summary**

Claims 1-4, 6-9, and 20-28 are pending. Claims 1 and 9 are amended herein. No new matter is added.

### **Examiner Interview**

Applicants thank the Examiner for the courtesies extended to Applicants' representative during a September 13, 2006, telephone interview in which the outstanding rejections were discussed. Applicants' separate record of the substance of the interview is embodied in the remarks below.

### **102(b) Rejection of Claims 1-4 and 6-9**

Claims 1-4 and 6-9 are rejected under 35 USC 102(b) as being unpatentable over US Patent No. 4,703,756 to Gough (Gough '756). Applicants respectfully traverse the rejection in light of the amendments to the claims and the remarks below.

Claim 1 recites an indwelling analyte sensor, comprising an electrochemically active surface; at least one nub of dielectric material extending outwardly from the electrochemically active surface; and a membrane system comprising an enzyme, the enzyme-containing membrane system adhering to, and surrounding, the electrochemically active surface and the nub. Gough '756 fails to teach or suggest every element of claim 1.

Gough '756 provides a sensor module having a housing within which are housed electrodes partially encased in glass. At the terminal portion of, and extending from, the glass casings, may be found a hydrophobic membrane 20 (also shown as element 24). In addition, at the terminal portion of the hydrophobic membrane of one of the electrodes may be found a glucose oxidase – albumin membrane 22.

However, nowhere in Gough '756 is there a teaching or suggestion of a membrane system comprising an enzyme, the enzyme-containing membrane system adhering to, and surrounding, the electrochemically active surface and the nub, as recited in claim 1. As clearly shown in Figures 3, 4, and 5 of Gough '756, the enzyme-

containing membrane (22) is only located at the terminal end of the electrodes, and does not surround the nub. Applicants' clarification of this feature is fully supported by the description and the figures of the present application. In particular, Figures 1 and 2 show a membrane surrounding both the electrochemically active surface and a nub, which is quite different from the arrangement provided in Gough '756.

Thus, Gough '756 fails to teach at least one feature of claim 1, and therefore, claim 1 is patentable over Gough '756.

Claims 2-4 and 6-9 depend directly or indirectly on claim 1, incorporating the features of claim 1. Therefore, as claim 1 is patentable over Gough '756, so are claims 2-4 and 6-9 by virtue of at least their dependency.

### **102(b) Rejection of Claims 1-4, 6-9, and 20-25**

Claims 1-4, 6-9, and 20-25 are rejected under 35 USC 102(b) as being unpatentable over US Patent No. 4,671,288 to Gough (Gough '288) in view of Gough '756. Applicants respectfully traverse the rejection in light of the amendments to the claims and the remarks below.

Claim 1 recites an indwelling analyte sensor, comprising an electrochemically active surface; at least one nub of dielectric material extending outwardly from the electrochemically active surface; and a membrane system comprising an enzyme, the enzyme-containing membrane system adhering to, and surrounding, the electrochemically active surface and the nub. Gough '288 fails to teach or suggest every element of claim 1.

Gough '288 provides a sensor module having a housing with one or more openings that may be in fluid communication with biological fluids. Membrane 24 may be applied at the opening(s) and may be used to control the permeation of glucose and oxygen. Gel matrix 20 may include an enzyme. Further, Gough '288 also includes an electrode 18 and various dielectric regions 27.

However, nowhere in Gough '288 is there a teaching or suggestion of a membrane system comprising an enzyme, the enzyme-containing membrane system adhering to, and surrounding, the electrochemically active surface and the nub. As is

clearly shown in Figures 1-9 of Gough '288, at no point does an enzyme-containing membrane system surround both the electrochemically active surface and a nub. The enzyme-containing gel matrix 20 surrounds electrode 18, but is merely next to, or adjacent to, two nubs (27). Applicants' clarification of this feature is fully supported by the description and the figures of the present application. In particular, Figures 1 and 2 show a membrane surrounding both the electrochemically active surface and a nub, which is quite different from the arrangement provided in Gough '288.

Thus, Gough '288 fails to teach at least one feature of claim 1, and therefore, claim 1 is patentable over Gough '288. In addition, the combination of Gough '288 and Gough '756 fails to teach at least one feature of claim 1, as described in detail above.

Claims 2-4, 6-9, and 20-25 depend directly or indirectly on claim 1, incorporating the features of claim 1. Therefore, as claim 1 is patentable over Gough '288, so are claims 2-4, 6-9, and 20-25 by virtue of at least their dependency.

#### **103(a) Rejection of Claim 26**

Claim 26 is rejected under 35 USC 103(a) as being unpatentable over Gough '288 in view of Gough '756 in further view of US Patent No. 6,144,871 to Saitoh et al. (Saitoh). Applicants respectfully traverse the rejection in light of the amendments to the claims and the remarks below.

Claim 26 depends on claim 1, incorporating the features of claim 1. Therefore, as claim 1 is patentable over Gough '288 and Gough '756, so is claim 26 by virtue of at least its dependency. Saitoh fails to overcome the deficiencies of Gough '288 and Gough '756 discussed above. Thus, claim 26 is patentable over Gough '288, Gough '756, and Saitoh for at least the reasons discussed above with respect to claim 1.

#### **103(a) Rejection of Claims 27 and 28**

Claims 27 and 28 are rejected under 35 USC 103(a) as being unpatentable over Gough '288 in view of Gough '756 in further view of US Patent No. 5,165,407 to Wilson

(Wilson). Applicants respectfully traverse the rejection in light of the amendments to the claims and the remarks below.

Claims 27 and 28 depend indirectly on claim 1, incorporating the features of claim 1. Therefore, as claim 1 is patentable over Gough '288 and Gough '756, so are claims 27 and 28 by virtue of at least their dependency. Wilson fails to overcome the deficiencies of Gough '288 and Gough '756 discussed above. Thus, claims 27 and 28 are patentable over Gough '288, Gough '756, and Wilson for at least the reasons discussed above with respect to claim 1.

### **Conclusion**

In view of the foregoing, Applicant respectfully submits that claims 1-4, 6-9, and 20-28 are in condition for allowance, and early issuance of the Notice of Allowance is respectfully requested.

If the Examiner has any questions, he is invited to contact the undersigned at (503) 796-2844. Please charge any shortages and credit any overages to Deposit Account No. 500393.

Respectfully submitted,  
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